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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/595,650	02/26/2007	Syoji Takiguchi	4401/1217-US0	4048
76808	7590	08/02/2010	EXAMINER	
Leason Ellis LLP 81 Main Street Suite 503 White Plains, NY 10601			ADDISU, SARA	
			ART UNIT	PAPER NUMBER
			3724	
			MAIL DATE	DELIVERY MODE
			08/02/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/595,650	Applicant(s) TAKIGUCHI ET AL.	
	Examiner SARA ADDISU	Art Unit 3724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 June 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>4/30/10</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/19/10 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

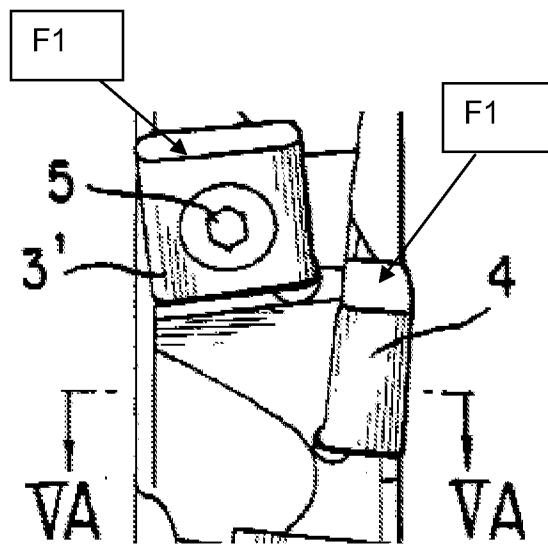
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimomura (USP 5,919,008) in view of Nakasaki (JP 2001-212712).

SHIMOMURA teaches a pin mirror cutter comprising: a first tip mounting seat formed in a peripheral face of a substantially annular cutter body which rotates around an axis; and a second tip mounting seat formed in an end face of the cutter body, wherein a throw-away tip in which cutting edges are formed at intersecting ridgeline parts between a pair of oppositely disposed side faces and upper and lower faces of the tip body is mounted on the first tip mounting seat such that a thickness direction of the tip body is approximately aligned with a radial direction of the cutter body ('008, figures

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4 and 5a). SHIMOMURA teaches first throw-away inserts (3, 3') are seated such that their thickness direction is approximately aligned with the radial direction while second throw-away inserts (4) are seated such that their thickness direction is approximately aligned with the axial direction (figures 3 and 4). SHIMOMURA teaches in figure 4, both first and second throw away inserts being mounted such that one of their long faces (F1) of each insert provides a rake face in a cutter rotation direction (see figure below). Furthermore, SHIMOMURA teaches tip bodies for a pin mirror cutter with inner and end faces (also admitted by applicant, remarks dated 6/26/09, page 9, 2nd paragraph, lines 5-6).



However, SHIMOMURA fails to teach the insert/tip having a substantially trapezoidal flat-plate-shaped tip body.

NAKASAKI teaches an end mill comprising: a first and a second tip mounting seat whereby the inserts have an overlapping seating arrangement ('712, figures 8 and 10). NAKASAKI also teaches the cutting tip having a substantially trapezoidal flat-plate-

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shaped tip body having two obtuse corner parts and two acute corner parts ('712, figure 7).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize a substantially trapezoidal flat-plate-shaped tip in SHIMOMURA's tool, as taught by NAKASAKI for the purpose of strengthening of the corner part of the insert ('712, English translation, paragraphs 10 and 11).

Response to Arguments

Applicant's arguments filed 5/19/10 have been fully considered but they are not persuasive.

In response to Applicant's argument (page 7) that "As stated in the Response to Office Action mailed March 18, 2009 and herein incorporated by reference, Nakasaki does not disclose any embodiment where a tip is mounted on a mill with a thickness direction that is approximately aligned with the axial direction of a cutting tool", Examiner respectfully points out that Nakasaki was not used to teach this subject matter. SHIMOMURA teaches these limitations in figures 3 and 4 whereby inserts (3, 3') are seated such that their thickness direction is approximately aligned with the radial direction while inserts (4) are seated such that their thickness direction is approximately aligned with the axial direction. None the less, NAKASAKI also teaches these features in figures 6 and 8, whereby inserts (3-5, 30 and 40) are seated such that their thickness direction is aligned with the axial direction while inserts (3 and 20) are seated such that their thickness direction is aligned with the radial direction.

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In response to Applicant's argument (page 6) that "Applicants respectfully submit that the Shimomura and Nakasaki references, alone or in combination, fail to disclose or suggest a pin mirror cutter in which throw-away tips are mounted on first and second seats such that a thickness direction of the tip body is approximately aligned with the radial and axial directions of the cutter body, and as such, the rake faces in the cutter rotation direction for the throw-away tip in the first and second mounting seats are provided by a long side face" Examiner respectfully points out that as shown above, SHIMOMURA teaches both first and second throw away inserts being mounted such that one of their long faces (F1) of each insert provides a rake face in a cutter rotation direction (see figure above).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sara Addisu at (571) 272-6082. The examiner can normally be reached on 8:30 am - 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer Ashley can be reached on (571) 272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Sara Addisu/

Examiner, Art Unit 3724

7/29/10

/Boyer D. Ashley/

Supervisory Patent Examiner, Art Unit 3724